

forms of hepatitis, with a concordance between the evaluations performed through the two scoring systems.

2. The severity of the necroinflammatory lesions progressed parallel to the patients' age.

3. Irrespective of the scoring system used, the necroinflammatory activity – evaluated at different levels – correlated with the stages of fibrosis.

PP-122 Assay of HCV cross-neutralization antibodies in sera of hepatitis C patients

Ping Zhao¹, Yi-min Tong¹, Zhi-hui Chen^{*2}, Zhong-tian Qi¹.

¹Department of Microbiology, Second Military Medical University, Shanghai, China; ²Department of Infectious Diseases, Changhai Hospital, Second Military Medical University, Shanghai, China

Objective: To analyze the neutralization activity against HCV of sera from hepatitis C patients.

Methods: A eukaryotic expression plasmid encoding carboxyl terminal-truncated HCV envelope protein 2 (E2) was transfected into human 293T cells. Both intracellular E2 and secreted E2 protein could be detected by western blot analysis. The intracellular E2 was used to assay anti-E2 antibodies in sera of hepatitis C patients by ELISA. The full-length envelope protein expression plasmid was transfected into 293 T cells and the reactivity of transfectant with anti-E2 IgG positive sera were analyzed by immunofluorescence. Five strains of HCV pseudotype particle (HCVpp) and two strains of cell cultured HCV (HCVcc) were used to assay the neutralization activity of 12 anti-E2 positive sera samples.

Results: ELISA showed 26 of 32 sera samples were anti-E2 IgG positive. The intensity of intracellular green fluorescence was paralleled with anti-E2 antibodies level of the tested sera using immunofluorescence assay. For 12 sera samples with HCV RNA positive, the virus load is negative correlated with anti-E2 antibodies levels. The anti-E2 positive sera could neutralize five strains of HCVpp and two strains of HCVcc at various degree, and the neutralization activity was consistent with the anti-E2 antibodies levels.

Conclusion: The results suggested that cross-neutralization antibodies against HCV are present in sera of hepatitis C patients, which indicated that development of vaccines that induce broadly-reactive neutralization antibodies may be possible.

PP-123 IFN- β and $\lambda 1$, the most specific IFN subtypes in chronic hepatitis C virus infection

Yun Ling^{*1,2}, Xin-Hua Li^{1,2}, Xiao-Fei Kong^{1,2}, Bi-Lian Yao^{1,2}, Qin Zhan², De-Ming Yu^{1,2}, Chong Huang^{1,2}, Gen-Di Jin¹, Qi-Ming Gong¹, Jie-Hong Jiang¹, Dong-Hua Zhang^{1,2}, Zhi-Meng Lu^{1,2}, Shen-Ying Zhang^{1,2}, Xin-Xin Zhang^{1,2}.

¹Department of Infectious Disease, Institute of Infectious and Respiratory diseases, Shanghai Ruijin Hospital, Shanghai Jiaotong University; ²Chinese-French Laboratory of Life Science and Genomics, Shanghai Ruijin Hospital, Shanghai Jiaotong University

Background: In humans, the type I interferon (IFN) family consists of 13 IFN- α subtypes, IFN- β and IFN- ω ; the type III IFN family consists of IFN- $\lambda 1$, $\lambda 2$ and $\lambda 3$. The biological significance of the existence of various IFN subtypes is not clear. Toll-like receptors (TLR3, 7, 8, 9) can trigger interferon IFN- α , IFN- β and IFN- λ , which are critical for antiviral immunity.

Methods: We investigated the 21 type I and III IFN subtypes in chronic hepatitis C virus (HCV) infection after completed IFN treatment for more than 3 months.

Result: Following different stimulations (Poly I:C for TLR3, Cl097 for TLR7/8, CpG-A for TLR9, HSV-1, VSV), constitutive expression of IFN subtypes is different for different therapeutic outcome.

IFN- β is the most specific subtype induced in PBMC from HCV patients for different therapeutic outcome. IFN- $\alpha 2$, $\alpha 5$, $\alpha 7$, $\alpha 14$, $\alpha 17$, $\lambda 1$ and ω are also specific for different outcome.

Conclusion: Some IFN subtype expressions correlate with anti-HCV treatment result.

PP-124 Changes of glucose and lipid metabolism in chronic hepatitis C

Yun-ru Li^{*}. Beijing Ditan Hospital, Beijing, China

Aims: Our aim was to evaluate the relationship between chronic hepatitis C (CHC) and development of diabetes mellitus (DM) or steatosis in comparison with chronic hepatitis B (CHB).

Methods: This study consisted of 192 patients, including 82 CHC and 110 CHB. The histological activity and fibrosis and steatosis in liver biopsy specimens were assessed in every patients. The serum parameters including alanine aminotransferase (ALT), total cholesterol (CHO), triglyceride (TG) levels and fasting plasmatic glucose were tested.

Results: The prevalence of DM in the CHC and CHB groups was 14.3%, 6.6%, respectively (CHC vs CHB, $P < 0.005$). Steatosis was detected in 39 out of 82 specimens (47.6%) and in 33 out of 110 CHB (28.2%) (CHC vs CHB, $P < 0.005$). The ALT levels and the HCV RNA load is higher in CHC with steatosis than that in CHC without steatosis. The triglyceride and cholesterol levels were significantly lower in CHC (with and without steatosis) than that in CHB.

Conclusions: CHC patients showed a higher prevalence of DM and steatosis than CHB patients. Lipid metabolism influences the replication of HCV and liver injury.

PP-125 Clinical analysis of chronic hepatitis C patients

Xiaogang Xiang^{*1,2}, Zhixia Dong¹, Qing Xie¹, Jin Zhong², Simin Guo¹, Hui Wang¹, Huijuan Zhou¹, Wei Cai¹, Yumin Xu¹.

¹Department of Infectious Disease, Ruijin Hospital, School of Medicine, Shanghai Jiaotong University; ²Institut Pasteur of Shanghai, Chinese Academy of Sciences, Unit of Viral Hepatitis

Objective: To investigate the modes of transmission and treatment outcome in chronic hepatitis C patients.

Methods: we analyzed the clinical data of 110 patients diagnosed as chronic hepatitis C, and recorded the modes of transmission, clinical manifestation and the feature of laboratory examination. We long-term followed up the patients during therapy.

Result: 35.5% of the patients was found on blood or blood products transfusion, 44 patients on surgery and trauma operation (40%). The rate of HCV genotype 1b and 2a is 50.9% and 16.4% respectively. The rate of viral load at 10c and 10⁶ IU/ml is 27.3% and 38.2% respectively. Obvious clinic presentation is observed in 20.9% of patients, and 79.1% does not have obvious hepatitis symptom and physical sign. Total SVR rate is 64.9%, genotype 1 is 54.3%, non-1 is up to 83.3%. Fever, fatigue and the decreasing of WBC and neutrophilic granulocyte are the predominate side effects during therapy. SVR rate is correlated with HCV genotype, age and viral load, whereas there is no relation to ALT level.

Conclusion: The predominant modes of transmission is blood transfusion or the using of blood products. However, surgery and trauma operation should be paid more attention, especially traditional Chinese medicine acupuncture. Coinfection with HBV accounts for a certain proportion. The most common genotypes are 1b and 2a. There is no obvious hepatitis symptom and physical sign. The impact factors on SVR are predominately HCV genotype, RNA level and age, whereas the serum ALT level is not significant impact factor.